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REMARKS

Claims 1, 2, 4-20, 25 and 26 are currently pending in the subject application and are presently under consideration. Claim 1 has been amended herein and claim 26 has been newly added. Such amendments do not raise new issues that require an additional search by the Examiner. In addition, two amended Terminal Disclaimers, signed by the attorney of record, are being filed concurrently herewith.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 1, 2, 4-20, and 25 Under 35 U.S.C. §102(b)

Claims 1, 2, 4-20, and 25 stand rejected under 35 U.S.C. §102(b) as being anticipated by Kagoshima *et al.* (US Patent Application Publication No. 2003/0003607 A1). It is respectfully requested that this rejection be withdrawn for at least the following reason. Kagoshima *et al.* does not teach or suggest each and every element of the subject claims.

A single prior art reference anticipates a patent claim only if it expressly or inherently describes each and every limitation set forth in the patent claim. *Trintec Industries, Inc., v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 U.S.P.Q.2d 1597 (Fed. Cir. 2002); *See Verdegaa Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the ... claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Independent claim 1 has been amended herein to recite a one or more *mask creating components* employed to fabricate one or more features on an alternating aperture phase shift mask. In general, an analysis component is employed to measure one or more features wherein the measured feature parameter is utilized by a driving system to control the *mask creating component* during fabrication process and post-fabrication process. An emitting component directs light on at least one of the features on the mask to provide information to the analysis component. It is respectfully submitted that Examiner's arguments are moot in light of the amendments herein.

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In particular, Kagoshima *et al.* does not teach or suggest a *mask creating component* that fabricates one or more features on an alternating aperture phase shift mask. Instead, Kagoshima *et al.* is directed to *semiconductor fabrication* and more particularly to a plasma processing control system utilized in a dry etching stage of fabrication. Such fabrication does not contemplate the fabrication of a mask as recited in the subject claim. Rather, as disclosed in Kagoshima *et al.*, *wafer/semiconductor fabrication* employs a mask that has already been created to facilitate fabrication of the wafer/semiconductor. (See p.1, ¶¶3-10). Thus, Kagoshima *et al.* does not teach or suggest the manufacture and/or *creating of a mask*, as recited in the subject claims.

In addition, Kagoshima *et al.* does not teach or suggest utilizing a measured feature parameter of a mask by a driving system to control the mask creating component, as recited in the subject claim. The Examiner contends that ¶¶27-32 and 41-43 of Kagoshima *et al.* disclose such limitation. However, the sections cited by the Examiner are not directed to measured mask feature parameters that *control a mask creating component*, as recited in the subject claims. Instead, the sections are directed to semiconductor/wafer fabrication, as noted above.

Moreover, Kagoshima *et al.* does not teach or suggest controlling a mask creating component during a mask fabrication process and *a post mask fabrication process*. Rather, Kagoshima *et al.* contemplates activity only during fabrication such as “a semiconductor manufacturing step, wafer processing is carried out with manufacturing conditions...” (See p.1, ¶3). Thus, Kagoshima *et al.* does not contemplate *post-fabrication processes* as recited in the subject claims.

Further, Kagoshima *et al.* does not teach or suggest an analysis component wherein the measured mask feature parameter is utilized by the driving system to *control the mask creating component*. The Examiner contends that element 24 of Fig. 7 discloses such a limitation. However, element 24 does not disclose utilizing a measured mask feature parameter to *control a mask creating component* during a mask fabrication process and post-fabrication process, as recited in the subject claim. Rather, element 24 relates to a sensor for “monitoring process parameters to measure the wafer immediately after etched within the etcher and to estimate dimensions and shape thereof” (See p.3, ¶43). Such a sensor does not interface to a *mask creating component* to control the mask

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fabrication. Instead, the sensors can be employed to estimate a processed result for a wafer and such an estimation can be compared to a target value. (See p.2, ¶30). Thus, an analysis component as recited in the subject claim is not disclosed in Kagoshima *et al.*

Accordingly, for at least the aforementioned reasons, it is submitted that the Kagoshima *et al.* neither anticipates nor anticipates applicants' invention as recited in claims 1, 15 or 25 (2, 4-20 which respectively depend therefrom) and this rejection should be withdrawn.

II. Rejection of Claims 1, 2, 4-20 and 25 Under U.S.C. §103(a)

Claims 1, 2, 4-20 and 25 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Latos (US Patent No. 4,208,240) in view of Niu *et al.* (Specular Spectroscopic scatterometry in DUV Lithography). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Latos and Niu *et al.* individually and in combination do not teach or suggest all limitations of the subject claims.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §706.02(j).

Independent claim 1 (and similarly independent claims 15 and 25) has been amended herein to recites one or more *mask creating components* employed to fabricate one or more mask features on an alternating aperture phase shift mask. Latos and Niu *et al.* individually and in combination do not teach or suggest all the limitations of the claimed subject invention and the Examiner's arguments are moot in light of the amendments herein.

Latos is directed to *semiconductor fabrication* and more particularly to an apparatus for controlling plasma etching. Such fabrication does not contemplate the

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fabrication of a mask as recited in the subject claim. Rather, as disclosed in Latos, plasma etching relates to a step in *fabrication of a semiconductor* which employs a mask *already created* to facilitate fabrication of the semiconductor. (See p.1, ¶¶3-10). Thus, Latos does not teach or suggest the manufacture and/or *creating of a mask*, as recited in the subject claims. Niu *et al.* does not make up for such deficiencies of Latos.

In light of the amendment to claim 1, the motivation given by the Examiner to combine the references is moot since neither reference contemplates a *mask creating component*, as recited in the subject claim. Thus, the Examiner's burden to show a motivation to combine Latos and Niu *et al.* is not met and the combination of such references is improper. The prior art items themselves must suggest the desirability and thus the obviousness of making the combination without the slightest recourse to the teachings of the patent or application. Without such independent suggestion, the prior art is to be considered merely to be inviting unguided and speculative experimentation which is not the standard with which obviousness is determined. *Amgen, Inc. v. Chugai Pharmaceutical Co. Ltd.*, 927 F.2d 1200, 18 USPQ2d 1016 (Fed. Cir. 1991); *In re Laskowski*, 871 F.2d 115, 117, 10 USPQ2d 1397, 1398 (Fed. Cir. 1989); *In re Dow Chemical Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1532 (Fed. Cir. 1988); *Hodosh v. Block Drug*, 786 F.2d at 1143 n. 5., 229 USPQ at 187 n. 4.; *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1985).

Moreover, the combination of Latos with Niu *et al.* does not teach all the limitations (*e.g.*, elements) of the subject invention. It is essential to consider all elements of the claimed invention; it is impermissible to compare the prior art with what the viewer interprets the "gist" of the invention to be *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 19 USPQ2d 1111 (Fed. Cir. 1991); *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 221 USPQ 669 (Fed. Cir. 1984); *Jones v. Hardy*, 727 F.2d 1524, 1527-28, 220 USPQ 1021m 1024 (Fed. Cir. 1984).

As discussed previously, the subject invention relates generally to measurement of *mask features* and more specifically to utilizing a an analysis component to control a mask creating component during fabrication. It is respectfully submitted that the neither Latos nor Niu *et al.*, singly and/or in combination teach, suggest or make obvious the

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limitation of utilizing a *mask creating component* during fabrication of a mask as recited in the subject claim.

In view of at least the foregoing, it is respectfully submitted that Latos and Niu *et al.* individually and in combination do not make obvious applicants' invention as recited in independent claims 1, 15 and 25 (and claims 3-14 and 16-20 which depend therefrom), and this rejection should be withdrawn.

III. Conclusion


The present application is believed to be in condition for allowance, in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063.

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

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